Arizona Department of Health Services

Clinician Fact Sheet: West Nile Virus

Clinical Presentation

- 80% of infected people have no symptoms
- 20% of infected people have symptoms such as fever, fatigue, malaise, nausea, vomiting, headache, eye pain, myalgia lasting 3-6 days
- About 1:150 people who are antibody positive will develop neuroinvasive disease: meningitis, encephalitis, polio-like acute flaccid paralysis, muscle weakness, ataxia, and seizures
- People over 50 years old are 10 times more likely to have neuroinvasive disease
- People over 80 years old are 43 times as likely to have neuroinvasive disease
- Mortality from neuroinvasive disease is about 9%

Differential Diagnosis

- Infections causing meningoencephalitis include enterovirus, SLE, WEE, herpes simplex, mycoplasma, coccidioidomycosis, tuberculosis, and bacterial disease

Who Should Be Tested for WNV?

- Patients with acute neurologic disease (aseptic meningitis, encephalitis, acute flaccid paralysis, or any unexplained neurologic disease of recent onset)
- Febrile patients at risk of progression of WNV infection to neurologic disease (i.e. patients with immunocompromise or diabetes mellitus, or pregnant women)
- Febrile patients who donated or received blood products within the past 2 weeks

Laboratory Testing

- Order **WNV IgM** in blood and/or cerebrospinal fluid
    - 90% with WNV develop serum IgM by day 8 of fever
    - 99% with CNS disease will have CSF IgM antibodies on presentation
- Arizona State Lab will test WNV IgM in blood or CSF from hospitalized patients with acute neurologic disease
- If you suspect a mosquito-borne illness in a patient with no travel history outside Arizona, you should consider ordering IgM for both WNV and SLE. If the patient's exposure history supports ordering the "arbovirus encephalitis antibody profile", you should be aware that the profile does not include WNV IgM, which needs to be ordered separately.

Treatment

- There is no approved specific treatment for WNV infection.
- Besides supportive care, clinicians may wish to enroll their patients with severe disease in experimental trials of WNV specific IVIG: Dr. Eskild Petersen, University of Arizona (1-800-777-7552); Dr. Janis Blair at Mayo Clinic, Scottsdale (480-342-0115). More details can be found at www.cdc.gov/westnile. In addition, Cornell University has an interferon alpha-3n study (www.nyhq.org/posting/rahal.html).

Report

- Notify your local or county health department of suspected cases of WNV.

For More Information

- Recorded Hotline: **Metro Phoenix** 602-364-4500; **Statewide** 800-314-9243
- ADHS website at www.westnileaz.com or CDC website at www.cdc.gov/westnile